

EAST SEARCH

4/11/04

| L# | Hits | Search String | Databases |
|----|------|--|--|
| L1 | 6 | ((6629312") or ("6457173") or ("6490716")).PN. | USPAT; US-PCGPUB; EPO; JPO; DERWENT; IBM_TDB |
| L2 | 1 | 5355491.PN. | USPAT |
| L3 | 1 | 6226776.PN. | USPAT |
| L4 | 1 | 6292938.PN. | USPAT |
| L5 | 1 | 6463582.PN. | USPAT |
| L6 | 1 | 6226776.PN. | USPAT |
| L7 | 1 | 6279100.PN. | USPAT; US-PCGPUB; EPO; JPO; DERWENT; IBM_TDB |
| L8 | 5 | (vlw or (very adj long adj instruction)) same (mutual\$4 and exclusiv\$5) (vlw or (very adj long adj instruction)) and (mutual\$4 and exclusiv\$5) and parallel\$5 | USPAT; US-PCGPUB; EPO; JPO; DERWENT; IBM_TDB |
| L9 | 148 | | |

Results of search set L8:

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|-----------------|---|----------|---------|
| US 6604188 B1 | Pipeline replay support for multi-cycle operations wherein all VLW instructions are flushed upon detection of a multi-cycle atom operation in a VLW instruction | 20030805 | 712/24 |
| US 6457173 B1 | Automatic design of VLW instruction formats | 20020924 | 717/149 |
| US 5974537 A | Guard bits in a VLW instruction control routing of operations to functional units allowing two issue slots to specify the same functional unit | 19991026 | 712/215 |
| US 5333280 A | Parallel pipelined instruction processing system for very long instruction word | 19940726 | 712/241 |
| JP 2001306321 A | Processor of very long instruction word system, has primary and secondary conditions which are not mutually exclusive relationships | 20011102 | |

Results of search set L9:

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|---------------|--|----------|---------|
| US 6702417 B2 | Printing cartridge with capacitive sensor identification | 20040309 | 347/19 |
| US 6697076 B1 | Method and apparatus for address re-mapping | 20040224 | 345/568 |
| US 6693643 B1 | Method and apparatus for color space conversion | 20040217 | 345/602 |
| US 6675286 B1 | Multimedia instruction set for wide data paths | 20040106 | 712/215 |
| US 6665454 B1 | Dot adjacency compensation in optical storage systems using ink dots | 20031216 | 382/299 |
| US 6651222 B2 | Automatic design of VLW processors | 20031118 | 716/1 |
| US 6644771 B1 | Printing cartridge with radio frequency identification | 20031111 | 347/19 |
| US 6643745 B1 | Method and apparatus for prefetching data into cache | 20031104 | 711/138 |

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|----------------|---|----------|-----------|
| US 6636216 B1 | Digital image warping system Emulation system that uses dynamic binary translation and permits the safe speculation of trapping operations | 20031021 | 345/427 |
| US 6631514 B1 | Programmatic synthesis of a machine description for retargeting a compiler | 20031007 | 717/137 |
| US 6629312 B1 | Configurable controller for audio channels | 20030930 | 717/136 |
| US 6629001 B1 | Image sensing apparatus including a microcontroller | 20030930 | 700/94 |
| US 6618117 B2 | Method for analyzing nucleic acid reactions | 20030909 | 355/18 |
| US 6607888 B2 | Pipeline replay support for multi-cycle operations wherein all VLIW instructions are flushed upon detection of a multi-cycle atom operation in a VLIW instruction | 20030819 | 435/6 |
| US 6604188 B1 | Method and apparatus for compiling source code using symbolic execution | 20030805 | 712/24 |
| US 6588009 B1 | Processing circuit and method for variable-length coding and decoding | 20030701 | 717/161 |
| US 6587058 B1 | Hardware debugging in a hardware description language | 20030701 | 341/67 |
| US 6581191 B1 | Automatic design of VLIW processors | 20030617 | 716/4 |
| US 6581187 B2 | Method and apparatus for variable length decoding and encoding of video streams | 20030617 | 716/1 |
| US 6573846 B1 | Printing cartridge with switch array identification | 20030603 | 341/67 |
| US 6565181 B2 | Method for scheduling threads in a multithreaded processor | 20030520 | 347/19 |
| US 6549930 B1 | Printing cartridge with an integrated circuit device | 20030415 | 718/104 |
| US 6547364 B2 | Adaptive tracking of dots in optical storage system using ink dots | 20030415 | 347/19 |
| US 6542645 B1 | Method and apparatus for compiling source code by flattening hierarchies | 20030401 | 382/254 |
| US 6539543 B1 | Programmatic synthesis of processor element arrays | 20030325 | 717/161 |
| US 6507947 B1 | Processing circuit and method for variable-length coding and decoding | 20030114 | 717/160 |
| US 6507293 B2 | Data processor | 20030114 | 341/67 |
| US 64966919 B1 | Automated design of processor instruction units | 20021217 | 712/24 |
| US 6490716 B1 | Image transformation means including user interface | 20021203 | 716/18 |
| US 6476863 B1 | Dot center tracking in optical storage systems using ink dots | 20021105 | 348/231.9 |
| US 6459495 B1 | Automatic design of VLIW instruction formats | 20021001 | 358/520 |
| US 6457173 B1 | Methods and apparatus for providing data transfer control | 20020924 | 717/149 |
| US 6457073 B2 | Universal impedance control for wide range loaded signals | 20020924 | 710/22 |
| US 6445316 B1 | System for authenticating physical objects | 20020903 | 341/120 |
| US 6442525 B1 | Programmatic iteration scheduling for parallel processors | 20020827 | 705/1 |
| US 6438747 B1 | Method and apparatus for informational storage in a portable print roll | 20020820 | 717/160 |
| US 6431669 B1 | Printing cartridge with two dimensional code identification | 20020813 | 347/2 |
| US 6416154 B1 | Target detection for dot region alignment in optical storage systems using ink dots | 20020709 | 347/19 |
| US 6415054 B1 | Automated design of processor systems using feedback from internal measurements of candidate systems | 20020702 | 382/233 |
| US 6408428 B1 | Virtualization system including a virtual machine monitor for a computer with a segmented architecture | 20020618 | 716/17 |
| US 6397242 B1 | Auto design of VLIW processors | 20020528 | 718/1 |
| US 6385757 B1 | | 20020507 | 716/1 |

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| US 6380758 B1 | Impedance control for wide range loaded signals using distributed methodology | 20020430 | 326/30 |
| US 6374403 B1 | Programmatic method for reducing cost of control in parallel processes | 20020416 | 717/161 |
| US 6374346 B1 | Processor with conditional execution of every instruction | 20020416 | 712/221 |
| US 6362869 B1 | Authentication system for camera print rolls | 20020326 | 355/18 |
| US 6362868 B1 | Print media roll and ink replaceable cartridge | 20020326 | 355/18 |
| US 6356715 B1 | Prints remaining indicating for camera with variable length print capability | 20020312 | 396/284 |
| US 6356105 B1 | Impedance control system for a center tapped termination bus | 20020312 | 326/30 |
| US 6351760 B1 | Division unit in a processor using a piece-wise quadratic approximation technique | 20020226 | 708/654 |
| US 6321322 B1 | Methods and apparatus for scalable instruction set architecture with dynamic compact instructions | 20011120 | 712/24 |
| US 6317192 B1 | Utilization of image tiling effects in photographs | 20011113 | 355/18 |
| US 6315200 B1 | Encoded data card reading system | 20011113 | 235/454 |
| US 6314511 B1 | Mechanism for freeing registers on processors that perform dynamic out-of-order execution of instructions using renaming registers | 20011106 | 712/217 |
| US 6298370 B1 | Computer operating process allocating tasks between first and second processors at run time based upon current processor load | 20011002 | 718/102 |
| US 6282708 B1 | Method and processor for structuring a multi-instruction computer program in an internal directed acyclic graph | 20010828 | 717/156 |
| US 6282632 B1 | Information processor having duplicate operation flags | 20010828 | 712/42 |
| US 6260082 B1 | Methods and apparatus for providing data transfer control | 20010710 | 710/22 |
| US 6221592 B1 | Computer-based methods and systems for sequencing of individual nucleic acid molecules | 20010424 | 435/6 |
| US 6217165 B1 | Ink and media cartridge with axial ink chambers | 20010417 | 347/86 |
| US 6202143 B1 | System for fetching unit instructions and multi instructions from memories of different bit widths and converting unit instructions to multi instructions by adding NOP instructions | 20010313 | 712/210 |
| US 6195748 B1 | Apparatus for sampling instruction execution information in a processor pipeline | 20010227 | 712/227 |
| US 6182203 B1 | Microprocessor | 20010130 | 712/22 |
| US 6179489 B1 | Devices, methods, systems and software products for coordination of computer main microprocessor and second microprocessor coupled thereto | 20010130 | 718/102 |
| US 6163840 A | Method and apparatus for sampling multiple potentially concurrent instructions in a processor pipeline | 20001219 | 712/227 |
| US 6148396 A | Apparatus for sampling path history in a processor pipeline | 20001114 | 712/227 |
| US 6119075 A | Method for estimating statistics of properties of interactions processed by a processor pipeline | 20000912 | 702/186 |
| US 6112298 A | Method for managing an instruction execution pipeline during debugging of a data processing system | 20000829 | 712/227 |

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| US 6105119 A | Data transfer circuitry, DSP wrapper circuitry and improved processor devices, methods and systems | 20000815 | 7/11/19 |
| US 6092184 A | Parallel processing of pipelined instructions having register dependencies | 20000718 | 7/12/18 |
| US 6092180 A | Method for measuring latencies by randomly selected sampling of the instructions while the instruction are executed | 20000718 | 7/12/200 |
| US 6081885 A | Method and apparatus for halting a processor and providing state visibility on a pipeline phase basis | 20000627 | 7/12/227 |
| US 6070009 A | Method for estimating execution rates of program execution paths | 20000530 | 7/17/130 |
| | Resuming normal execution by restoring without refetching instructions in multi-word instruction register interrupted by debug instructions loading and processing | 20000516 | 7/12/24 |
| US 6065106 A | Processor test port with scan chains and data streaming | 20000425 | 7/14/30 |
| US 6055649 A | Data processor | 20000208 | 7/12/209 |
| US 6016555 A | Non-intrusive software breakpoints in a processor instruction execution pipeline | 20000118 | 7/14/35 |
| US 6000044 A | Apparatus for randomly sampling instructions in a processor pipeline | 19991207 | 7/14/47 |
| US 5998336 A | Method and apparatus for packing and unpacking wide instruction word using pointers and masks to shift word syllables to designated execution units groups | 19991109 | 7/12/24 |
| US 5974537 A | Guard bits in a VLIW instruction control routing of operations to functional units allowing two issue slots to specify the same functional unit | 19991026 | 7/12/215 |
| US 5970241 A | Maintaining synchronism between a processor pipeline and subsystem pipelines during debugging of a data processing system | 19991019 | 7/12/227 |
| US 5968160 A | Method and apparatus for processing data in multiple modes in accordance with parallelism of program by using cache memory | 19991019 | 7/12/14 |
| US 5964867 A | Method for inserting memory prefetch operations based on measured latencies in a program optimizer | 19991012 | 7/12/219 |
| US 5949994 A | Dedicated context-cycling computer with timed context Computing apparatus and operating method using software queues to improve graphics performance | 19990907 | 7/12/228 |
| US 5949439 A | Multi-ported and interleaved cache memory supporting multiple simultaneous accesses thereto | 19990713 | 7/11/127 |
| US 5924117 A | Apparatus for sampling instruction operand or result values in a processor pipeline | 19990713 | 7/12/244 |
| US 5923872 A | Multifunctional execution unit having independently operable adder and multiplier Bus bridge device including data bus of first width for a first processor, memory controller, arbiter circuit and second processor having a different second data width | 19990713 | 7/12/221 |
| US 5909559 A | Coherence apparatus for cache of multiprocessor | 19990601 | 7/10/307 |
| US 5890217 A | Computing apparatus and operating method using string caching to improve graphics performance | 19990330 | 7/11/141 |
| US 5883640 A | | 19990316 | 345/503 |

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| US 5809450 A | Method for estimating statistics of properties of instructions processed by a processor pipeline | 19980915 | 702/186 |
| US 5790874 A | Information processing apparatus for reducing power consumption by minimizing hamming distance between consecutive instruction | 19980804 | 713/320 |
| US 5787026 A | Method and apparatus for providing memory access in a processor pipeline | 19980728 | 708/521 |
| US 5784630 A | Method and apparatus for processing data in multiple modes in accordance with parallelism of program by using cache memory | 19980721 | 712/30 |
| US 5764951 A | Methods for automatically pipelining loops | 19980609 | 716/1 |
| US 5764943 A | Data path circuitry for processor having multiple instruction pipelines | 19980609 | 712/218 |
| US 5699460 A | Image compression coprocessor with data flow control and multiple processing units | 19971216 | 382/307 |
| | Selective processing and routing of results among processors controlled by decoding instructions using mask value derived from instruction tag and processor identifier | 19971028 | 712/209 |
| US 5682491 A | Computer processor with an efficient means of executing many instructions simultaneously | 19951128 | 712/235 |
| US 5471593 A | VLIW processor which uses path information generated by a branch control unit to inhibit operations which are not on a correct path | 19950912 | 712/235 |
| US 5450556 A | Decoded instruction cache architecture with each instruction field in multiple-instruction cache line directly connected to specific functional unit | 19950815 | 712/215 |
| US 5442760 A | Parallel pipelined instruction processing system for very long instruction word | 19940726 | 712/241 |
| US 5333280 A | System and method using double-buffer preview mode | 19940712 | 711/173 |
| US 5329630 A | Architectures for serial or parallel loading of writable control store | 19911008 | 703/27 |
| US 4873630 A | Scientific processor to support a host processor referencing common memory | 19891010 | 712/3 |
| US 20040065738 A1 | Data distribution mechanism in the form of ink dots on cards | 20040408 | 235/454 |
| US 20040061734 A1 | Printing device for use with a printing cartridge having capacitive sensor identification | 20040401 | 347/19 |
| US 20040056105 A1 | Data structure encoded on a surface of an object | 20040325 | 235/494 |
| US 20040051753 A1 | Method of identifying printing cartridge characteristics with capacitive sensors | 20040318 | 347/19 |
| US 20040041018 A1 | Card having coded data and visible information, for operating a device | 20040304 | 235/375 |
| US 20040030873 A1 | Single chip multiprocessing microprocessor having synchronization register file | 20040212 | 712/245 |
| | Methods and apparatus for automated generation of abbreviated instruction set and configurable processor architecture | 20040122 | 717/158 |
| US 20040015931 A1 | High speed arithmetic operations for use in turbo decoders | 20040122 | 714/786 |
| US 20040015773 A1 | Image printing apparatus including a microcontroller | 20040115 | 355/18 |
| US 20040008327 A1 | Utilization of color transformation effects in photographs | 20040115 | 348/207.2 |
| US 20040008262 A1 | Print roll for use in a camera imaging system | 20040115 | 348/207.2 |
| US 20040008261 A1 | Programmable camera system with software interpreter | 20040108 | 355/18 |

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| US 20040004651 A1 | Printing cartridge with a data-carrying integrated circuit device | 20040108 | 347/86 |
| US 2004004129 A1 | Identifying card | 20040108 | 235/487 |
| US 20030233642 A1 | System and method for assigning basic blocks to computer control flow paths | 20031218 | 717/156 |
| US 20030233641 A1 | System and method for merging control flow paths | 20031218 | 717/156 |
| US 20030200420 A1 | Methods and apparatus for scalable instruction set architecture with dynamic compact instructions | 20031023 | 712/209 |
| US 20030126404 A1 | Data processing system, array-type processor, data processor, and information storage medium | 20030703 | 712/15 |
| US 20030120996 A1 | High speed add-compare-select operations for use in viterbi decoders | 20030626 | 714/795 |
| US 20030117496 A1 | Preprinted print rolls for postal use in an image processing device | 20030626 | 348/207.2 |
| US 20030112419 A1 | Printing cartridge with barcode identification | 20030619 | 355/18 |
| US 20030079065 A1 | Methods and apparatus for providing data transfer control | 20030424 | 710/22 |
| US 20030068185 A1 | Printing cartridge with switch array identification | 20030410 | 400/613 |
| US 20030066061 A1 | Method and apparatus for performing compiler transformation of software code | 20030403 | 717/158 |
| US 20030065911 A1 | using fastforward regions and value specialization | 20030403 | 712/227 |
| US 20030056088 A1 | Data processor | 20030320 | 712/214 |
| US 20030041163 A1 | Processor, compiler and compilation method | 20030227 | 709/232 |
| HIGHLY COMPONENTIZED SYSTEM ARCHITECTURE WITH A DEMAND-LOADING NAMESPACE AND PROGRAMMING MODEL | | | |
| US 20030033441 A1 | LOADING NAMESPACE AND PROGRAMMING MODEL | 20030213 | 719/315 |
| US 20020144101 A1 | Caching DAG traces | 20021003 | 712/240 |
| US 20020133784 A1 | Automatic design of VLIW processors | 20020919 | 716/1 |
| US 20020120914 A1 | Automatic design of VLIW processors | 20020829 | 716/17 |
| US 20020083308 A1 | Data processing device with a configurable functional unit | 20020627 | 712/226 |
| US 20020080335 A1 | Printing cartridge with capacitive sensor identification | 20020627 | 355/18 |
| US 20020073299 A1 | Methods and apparatus for scalable instruction set architecture with dynamic compact instructions | 20020613 | 712/24 |
| US 20020071104 A1 | Image sensing apparatus including a microcontroller | 20020613 | 355/18 |
| US 20020061523 A1 | Method for analyzing nucleic acid reactions | 20020523 | 435/6 |
| US 20020033854 A1 | Printing cartridge with pressure sensor array identification | 20020321 | 347/17 |
| US 20020030713 A1 | Printing cartridge with two dimensional code identification | 20020314 | 347/19 |
| US 20020030712 A1 | Printing cartridge with an integrated circuit device | 20020314 | 347/19 |
| US 20020011943 A1 | Processing circuit and method for variable-length coding and decoding | 20020131 | 341/67 |
| US 20020010814 A1 | Methods and apparatus for providing data transfer control | 20020124 | 710/22 |
| MECHANISM FOR FREEING REGISTERS ON PROCESSORS THAT PERFORM DYNAMIC OUT-OF-ORDER EXECUTION OF INSTRUCTIONS | | | |
| US 20010004755 A1 | USING RENAMING REGISTERS | 20010621 | 712/217 |